UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

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August Term, 2003

(Argued December 4, 2003 Decided October 18, 2004)

Docket Nos. 02-9222, 02-9346

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GENEVA PHARMACEUTICALS TECHNOLOGY CORP.,
as successor in interest to Invamed, Inc.,

Plaintiff-Appellant,

APOTHECON, INC.,

Consolidated-Plaintiff-Appellant,

v.

BARR LABORATORIES INC., BRANTFORD CHEMICALS INC.,
BERNARD C. SHERMAN, APOTEX HOLDINGS, INC., APOTEX, INC.,
SHERMAN DELAWARE, INC.,

Defendants-Appellees.

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Before:

CARDAMONE, SACK, and GIBSON*,
Circuit Judges.

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Plaintiffs manufacturers appeal an order of the United States District Court for the Southern District of New York (Sweet, J.) entered October 7, 2002 granting partial summary judgment dismissing plaintiffs' claims that a competing manufacturer and its supplier conspired to restrain trade and monopolize the supply and retail markets of generic warfarin sodium in violation of §§ 1 and 2 of the Sherman Antitrust Act and § 7 of the Clayton Act.

Affirmed, in part, reversed, in part, and remanded.

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* Honorable John R. Gibson, United States Court of Appeals for the Eighth Circuit, sitting by designation.

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WAYNE A. CROSS, White & Case, New York, New York (Michael J. Gallagher, Brendan G. Woodard, White & Case LLP, New York, New York; Frederick R. Dettmer, Law Office of Frederick R. Dettmer, New York, New York; David S. Preminger, Rosen, Preminger & Bloom, New York, New York, of counsel), for Plaintiff-Appellant Geneva Pharmaceuticals Technology Corp.

LOUIS M. SOLOMON, New York, New York (Harry Frischer, Colin A. Underwood, Jennifer R. Scullion, Daniel J. Rothstein, Proskauer Rose LLP, New York, New York, of counsel), for Plaintiff-Appellant Apothecon, Inc.

MICHAEL J. GAERTNER, Chicago, Illinois (David G. Greene, Lord, Bissell & Brook, Chicago, Illinois, of counsel), for Defendants-Appellees Brantford Chemicals Inc., Bernard C. Sherman, Apotex Holdings Inc., Apotex Inc., Sherman Delaware, Inc.

KURT L. SCHULTZ, New York, New York (Alan B. Howard, Winston & Strawn, New York, New York, of counsel), for Defendant-Appellee Barr Laboratories, Inc.

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CARDAMONE, Circuit Judge:

This civil antitrust action was instituted by plaintiffs-appellants Apothecon, Inc. and Geneva Pharmaceuticals Technology Corp., which manufacture and distribute a generic form of warfarin sodium, an anti-coagulant medication (a blood thinner). The suit was brought under §§ 1 and 2 of the Sherman Antitrust Act, 15 U.S.C. § 1 and § 2 (2000). Those sections make it unlawful to enter into a contract, combination, or conspiracy in restraint of trade (§ 1), and/or to engage in a conspiracy to monopolize (§ 2). Plaintiffs' antitrust claims are based on the alleged anti-competitive conduct of defendants-appellees Barr Laboratories, Inc., a competing manufacturer of generic warfarin sodium, and Brantford Chemicals, Inc., a supplier of clathrate, which is the primary chemical ingredient used to make warfarin sodium.

This litigation is about protecting the operation of our competitive markets. Competition, which fosters innovation and tends to lower prices for consumers, directly pits one producer against another. When individual firms go head-to-head, one might wish that the rules of the Marquis of Queensberry, which ensure fair play,[1] would be uppermost in the competitors' minds. The antitrust laws, however, safeguard consumers by protecting

[1] The code of rules that most directly influenced modern boxing was first published in 1867 under the sponsoring of John Sholto Douglas, Marquis of Queensberry (1844-1900), from whom they take their name. There are 12 rules in all, including "no wrestling or hugging allowed," to ensure a fair fight between contestants. See 7 Encyclopædia Britannica 870 (15th ed. 2002).

the competitive process. Those laws, unlike the Marquis of Queensberry rules, are not designed to protect competitors from one another's conduct.

Plaintiffs appeal from an order of the United States District Court for the Southern District of New York (Sweet, J.), entered October 7, 2002, which granted partial summary judgment to defendants dismissing plaintiffs' antitrust causes of action and dismissing Apothecon's state law claims for lack of standing. See Geneva Pharms. Tech. Corp. v. Barr Labs., Inc., 201 F. Supp. 2d 236 (S.D.N.Y. 2002).

BACKGROUND

A. The Parties

Plaintiff Apothecon, Inc. (Apothecon) is a wholly-owned subsidiary of pharmaceutical giant Bristol-Myers Squibb, and plaintiff Geneva Pharmaceuticals Technology Corp. (Geneva), the successor-in-interest to Invamed, Inc., is a wholly-owned subsidiary of Novartis. In June 1996 Apothecon and Geneva entered into a five-year Development and Supply Agreement to develop, manufacture, and market generic pharmaceutical drugs, including generic warfarin sodium. The parties dispute the precise nature of the relationship between Apothecon and Geneva, which as we explain later affects whether Apothecon has standing to sue.

Defendant Barr Laboratories, Inc. (Barr) is a competing manufacturer of generic warfarin sodium. Defendant Brantford Chemicals, Inc. is a Canadian corporation that, prior to July

1996, was known as ACIC (Canada) Inc. (hereafter ACIC/Brantford). ACIC/Brantford is a supplier of various chemicals used in manufacturing pharmaceutical drugs, including clathrate. An exclusive dealing contract between Barr and ACIC/Brantford is a key issue in this litigation.

The other defendants are Dr. Bernard C. Sherman, a Canadian citizen who is the beneficial owner of all the stock of defendant Apotex, Inc., a Canadian company with its principal place of business in Weston, Ontario. Dr. Sherman is also a substantial shareholder of Barr and was a member of its board of directors. In addition, Dr. Sherman, through Apotex, now controls 100 percent of the shares of ACIC/Brantford, so he is clearly an important figure in the events we discuss.

B. Drug Industry

1. Generic Pharmaceutical Drugs

We believe it helpful to describe at the outset the place of generics in the drug industry. Generic drugs are chemically identical versions of branded drugs and cannot be put on the market until the patent on the branded drug has expired. Generic drugs are typically sold at a substantial discount from the name brand drug. To market and distribute such a drug in the United States, manufacturers must receive approval from the United States Food and Drug Administration (FDA). A generic manufacturer files an Abbreviated New Drug Application with the FDA to establish that its drug is therapeutically equivalent to the innovator drug.

As part of the approval process, pharmaceutical companies must identify the supplier of the active pharmaceutical ingredient they intend to use in manufacturing the product. Ingredient suppliers, such as ACIC/Brantford, submit a Drug Master File (Master File) to the FDA which summarizes the equipment, manufacturing process, and control measures used to prepare the particular ingredient. The supplier submits a reference letter to the FDA on behalf of a particular manufacturer, stating that it will follow the methods in its Master File for that manufacturer.

The parties dispute the effect of a Master File reference letter. Plaintiffs maintain it is industry practice for such a reference letter effectively to bind a supplier actually to provide the chemical to the manufacturer. They also state that manufacturers and suppliers generally do business in reliance on oral agreements. Defendants respond that the filing of a reference letter is nothing more than a preliminary action that creates no obligation on the part of the supplier.

The FDA rates a generic product as AB equivalent if it is a bioequivalent to the branded product. The generic warfarin sodium products currently on the market all have been rated as AB equivalent to the branded drug Coumadin. Despite this rating, generic drugs may have some minor differences from the branded drug, such as the water content, crystalline structure, and particle size of the active ingredient.

2. Warfarin Sodium

Warfarin sodium, the drug at the root of this litigation, is an oral anti-coagulant medication prescribed by a physician and taken in tablet form. This drug thins the blood and helps prevent blood clots that can cause strokes and heart attacks. Warfarin sodium is viewed as a narrow therapeutic index drug because the dosage has a narrow range of therapeutic value: the range between too low a dose, which is ineffective, and too high a dose, which may cause harmful side effects, is narrow. Its active ingredient is known as "bulk" warfarin sodium or warfarin sodium clathrate. The parties dispute whether the process to make clathrate is simple or complex; plaintiffs assert it can take years to develop a process to produce clathrate.

For nearly 50 years warfarin sodium has been manufactured by DuPont under the well-known brand name Coumadin. Although DuPont's patent for Coumadin expired in 1962, it remained the only manufacturer of warfarin sodium for the next 35 years. Its annual sales eventually exceeded $500 million. Several companies received FDA approval to market warfarin-related products in the 1980's, but these products were unsuccessful.

In 1990 the New England Journal of Medicine published the results of two studies that created renewed interest in the efficacy of warfarin sodium. A few companies thereafter began the process of gaining approval to enter the warfarin sodium market. Currently, four companies sell warfarin sodium in the United States: DuPont, with Coumadin since 1956; Barr, with

generic warfarin sodium since July 1997; Geneva, with generic warfarin sodium since October 1998; and Taro Pharmaceutical Industries Ltd. (Taro), which has marketed generic warfarin sodium since September 1999. Key for a manufacturer to the production of warfarin sodium is obtaining a source of clathrate.

C. Obtaining a Source of Clathrate

1. Defendant Barr's Relationship with Defendant ACIC/Brantford

In the early 1990's Barr identified warfarin sodium as a product with high barriers to entry because of the difficulty in procuring commercial quantities of clathrate. Barr began to research potential suppliers, and in 1991 it discussed purchasing clathrate from ACIC/Brantford. ACIC/Brantford confirmed that it would be able to produce commercial quantities of clathrate. In February 1991 Barr placed a small order for it. On March 15, 1995 ACIC/Brantford filed a Master File for clathrate, and on April 3, 1995, it provided a reference letter to the FDA in support of Barr's warfarin sodium Abbreviated New Drug Application. On May 10, 1995 Barr filed its application, listing ACIC/Brantford as its supplier of clathrate.

(a) Exclusive Arrangement Between Barr and ACIC/Brantford

In September 1995 the defendants entered into an exclusive supply agreement pursuant to which ACIC/Brantford would supply Barr with clathrate. The agreement obligated Barr to purchase $1.8 million worth of clathrate. It also provided that ACIC/Brantford would supply Barr exclusively with commercial quantities of clathrate until another manufacturer began selling

generic warfarin sodium. Barr agreed to purchase 100 percent of its supply from ACIC/Brantford during the exclusivity period. One week after they entered into the supply agreement, the defendants executed a confidentiality agreement that for five years prohibited either party from disclosing "valuable, proprietary, technical, commercial and other confidential information."

This agreement only covered commercial quantities of clathrate. Hence, it did not prohibit ACIC/Brantford from selling small samples or developmental quantities, or from acting as a broker between manufacturers and other suppliers. The agreement also permitted Barr to purchase small quantities of clathrate from other sources in order to qualify that supplier as an alternate source.

(b) ACIC/Brantford Becomes Barr's Only Source

From September 1995 through September 1996, Barr ordered larger shipments of clathrate from ACIC/Brantford, the last of which was shipped in February 1997. On March 26, 1997, the FDA approved Barr's application and authorized it to begin marketing, which it did starting in July 1997. The FDA determined that Barr's warfarin sodium tablets were "bioequivalent, and therefore therapeutically equivalent" to the name brand drug Coumadin.

Barr continued to place orders for large quantities of clathrate from ACIC/Brantford. In a September 1997 document Barr referred to ACIC/Brantford as "the only source [of clathrate] available to the generic industry." The district court found

that Barr had attempted to secure a back-up producer, but as of March 1998 had not succeeded.

2. Plaintiff Geneva's Search for a Source of Clathrate

(a) Plaintiff's Dealings Before 1996 with Defendant ACIC/Brantford

Geneva's attempt to obtain a source of clathrate encountered nearly insurmountable obstacles. Between 1993 and 1996 it sought to obtain a clathrate supply from numerous chemical companies, including Hoechst Celanese, Chemoswede, Banyan Chemicals, and others. A critical issue in the present dispute is whether any of these potential suppliers was in fact a viable commercial source of clathrate because nearly all of plaintiff's accusations depend on its theory that ACIC/Brantford's monopoly on clathrate created a bottleneck for others attempting entry into the generic warfarin market. At the relevant time, Geneva concluded that ACIC/Brantford was its only viable supplier. But, the district court found several other sources were available to plaintiffs.

Geneva had purchased a variety of products from ACIC/Brantford during the 1980's and 90's. Dr. Panjak Dave, Geneva's regulatory manager, had represented Geneva in most of the prior dealings with ACIC/Brantford. Sergio Getrajdman was ACIC/Brantford's sales representative responsible for sales to Geneva. On September 20, 1994 when Dr. Dave contacted Getrajdman to discuss the availability of clathrate, Getrajdman told him that ACIC/Brantford had no exclusive arrangement with respect to clathrate and that it could supply clathrate to Geneva. The next

day, Dr. Dave telephoned ACIC/Brantford for a price quote on a small purchase and was quoted approximately $2,500 per kg.

From late 1994 through early 1995, ACIC/Brantford sent Geneva several samples and R&D quantities of clathrate. At one point, Geneva purchased 15 kg. In March 1995 ACIC/Brantford sent three additional samples along with technical information that Geneva had requested. In April 1995 ACIC/Brantford sent the FDA a Master File reference letter on behalf of Geneva (then known as Invamed). The letter provided:

> Dear Sir,
>
> Re: WARFARIN SODIUM DMF #11387
>
> Authorization is hereby given to the Food and Drug Administration to refer to our Master File for WARFARIN SODIUM on behalf of:
>
> INVAMED, INC.
> 2400 Route 130 North
> Dayton, NJ 08810 -- U.S.A.
>
> In support of any new drug application they may file on pharmaceutical preparation containing the drug manufactured by us.
> ACIC (CANADA) INC. herewith commits itself to manufacture all of their pharmaceutical products in accordance with the current good manufacturing practices and by the methods described in this specific Drug Master File, and to issue a new DMF reference letter after each amendment on the above Drug Master File.

In July 1995 Geneva ordered 5 more kg of clathrate at $2,500 per kg and requested ACIC/Brantford's safety and handling procedures. ACIC/Brantford shipped the product along with information about its procedures.

(b) Plaintiff's Dealings with ACIC/Brantford in 1996-97

From this point forward, communications between ACIC/Brantford and Geneva are in considerable dispute. In the background of these communications is the Barr/ACIC/Brantford exclusive dealing arrangement signed in late September 1995, and the confidentiality agreement signed one week later. The district court found that on August 23, 1995 ACIC/Brantford's Getrajdman attempted to dissuade Geneva from pursuing its FDA application on the pretext that others were ahead of it, and that its market share would thus be proportionally smaller. In January 1996 Geneva's Dave placed an order for 12 to 14 kg of clathrate from ACIC/Brantford to perform tests on a particular machine. Getrajdman advised Dave that he did not know when availability would permit ACIC/Brantford to accept this order.

Before and during 1996, Geneva avers it informed Getrajdman that it would be working with ACIC/Brantford's clathrate and intended to use its clathrate to file its Abbreviated New Drug Application. Geneva insists it also specifically advised ACIC/Brantford that it would be obligated to supply Geneva with commercial clathrate once Geneva's application was approved, and asserts that it received repeated assurances from ACIC/Brantford. Geneva says that ACIC/Brantford never mentioned its exclusive contract with Barr and never said it was unwilling or unable to supply Geneva with clathrate.

In the spring of 1997 Dr. Dave asked Getrajdman for 100-150 kg of clathrate. Getrajdman responded that ACIC/Brantford would

be able to deliver the order as soon as the FDA approved two generic manufacturers' applications for generic warfarin sodium. Getrajdman gave no explanation for this condition, but it is essentially consistent with the terms of the Barr/ACIC/Brantford supply agreement.

In September 1997 Geneva received FDA approval for its generic warfarin sodium application. The next day it sent ACIC/Brantford an order to purchase 750 kg of clathrate for $1.8 million. By October 1997 Geneva still had not received an acceptance of its order, and it threatened legal action. On October 20, 1997 ACIC/Brantford formally rejected Geneva's order, and thereafter refused to accept further Geneva orders. It was then that Geneva first learned of the exclusive deal between ACIC/Brantford and Barr, and that as a result, ACIC/Brantford would not be able to supply it with clathrate.

Finding itself suddenly without a supplier, Geneva turned to Banyan Chemicals (Private) Ltd. (Banyan), an Indian manufacturer. Geneva and Banyan had previously worked together on several products, and in 1995 had signed a Memorandum of Understanding that included a provision that Banyan would begin to develop the capability to manufacture clathrate. Banyan had never manufactured clathrate before, and at the time Geneva expected Banyan's development process to take years.

After ACIC/Brantford rejected Geneva's order, Geneva decided that the fastest way it could enter the market was by assisting Banyan to develop a process for manufacturing clathrate. Geneva

and Apothecon eventually entered the generic warfarin sodium market using Banyan clathrate in October 1998, after a one-year delay from the date of Geneva's unfilled order to ACIC/Brantford.

D. Plaintiffs' Claims Against Defendants

Plaintiffs sued ACIC/Brantford and Barr alleging that their secret exclusive dealing arrangement unfairly gave Barr exclusive access to the only available source of clathrate. They further assert that ACIC/Brantford repeatedly assured them that it would provide them with clathrate, and that because of those assurances they delayed taking steps to develop an alternative supply. These circumstances, plaintiffs insist, effectively delayed their entry into the generic warfarin sodium market for one year, and gave Barr a monopoly in this drug during that period. Plaintiffs declare that consumer prices were inflated during the exclusivity period and that Barr's lengthy monopoly gave it an unfair advantage as an entrenched first-mover, even after competitors eventually entered the market.

Plaintiffs further declare that the exclusive supply contract, coupled with the confidentiality agreement, amounted to a contract, combination or conspiracy in restraint of trade that violated § 1 of the Sherman Act and was, in effect, a conspiracy to monopolize in violation of § 2. They allege in addition an actual monopoly by Barr in the generic warfarin sodium market that violated § 2, and declare that ACIC/Brantford misused its monopoly in the clathrate market that likewise violated § 2. Finally, plaintiffs aver that the acquisition of ACIC/Brantford

by Apotex -- and via Apotex by Dr. Sherman -- violated § 7 of the Clayton Act because the acquisition lessened competition or tended to create a monopoly in the generic warfarin sodium market.

E. District Court Proceedings

On defendants' motion for summary judgment, the district court ruled against plaintiffs on most of the crucial issues and, granting defendants' motion, dismissed plaintiffs' federal antitrust claims. The court ruled the relevant warfarin sodium market was the entire market, including Coumadin. Since Barr had little market share in this overall market, the court found no monopolization of warfarin sodium. It also identified other available suppliers of clathrate and ruled that ACIC/Brantford was not therefore monopolizing the clathrate industry.

Finding the supply agreement between Barr and ACIC/Brantford was the product of reasonable business decisions and had pro-competitive benefits, the trial court dismissed all the Sherman Act causes of action. Further, finding no evidence that Apotex's purchase of ACIC/Brantford caused economic harm to plaintiffs, it also dismissed the Clayton Act claim. In addition, the district court ruled Apothecon was not engaged in a joint venture with Geneva and therefore lacked standing to sue. From these rulings and the order entered thereon, plaintiffs appeal. Geneva's state law tort and breach of contract causes of action against the same defendants remain before the district court during the pendency of this appeal.

DISCUSSION

I Partial Summary Judgment

Ordinarily, a district court's grant of partial summary judgment is not immediately appealable because it is not a final judgment. See 28 U.S.C. § 1291; Coopers & Lybrand v. Livesay, 437 U.S. 463, 467 (1978) (federal appellate jurisdiction generally requires a conclusive decision by the district court that ends the litigation on the merits). The district court entered final judgment on October 7, 2002 on the claims it dismissed pursuant to Fed. R. Civ. P. 54(b).[2] Rule 54(b) allows for the entry of a partial final judgment and thereby permits immediate appeal to avoid injustice. Thus, we have appellate jurisdiction. See O'Bert ex rel. Estate of O'Bert v. Vargo, 331 F.3d 29, 40-41 (2d Cir. 2003).

Summary judgment is useful "to isolate and dispose of factually unsupported claims," Celotex Corp. v. Catrett, 477 U.S. 317, 323-24 (1986), particularly in antitrust cases. See Tops Mkts., Inc. v. Quality Mkts., Inc., 142 F.3d 90, 95 (2d Cir. 1998). This remedy is an essential tool in the area of antitrust

[2] Rule 54(b) provides in pertinent part:

> When more than one claim for relief is presented in an action, whether as a claim, counterclaim, cross-claim, or third-party claim, or when multiple parties are involved, the court may direct the entry of a final judgment as to one or more but fewer than all of the claims or parties only upon an express determination that there is no just reason for delay and upon an express direction for the entry of judgment.

law because it helps avoid wasteful and lengthy litigation that may have a chilling effect on pro-competitive market forces. See Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 593-94 (1986).

We review a grant of summary judgment de novo to ensure the district court applied substantive antitrust law correctly. Tops Mkts., 142 F.3d at 95. A grant of such relief is proper if there are no genuine issues of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c) (2000). Upon reviewing the record, we draw all inferences and resolve all ambiguities in favor of the non-moving party, here plaintiffs. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986). In an antitrust case, however, those inferences must be weighed in light of competing inferences of permissible competition, and the inference of conspiracy must be found the more reasonable in order for plaintiffs to escape summary judgment. Matsushita, 475 U.S. at 588. With these standards in mind we turn to the substantive claims.

II Section 2 Claims

Section 2 of the Sherman Act makes it an offense for any person to "monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States." 15 U.S.C. § 2. Plaintiffs accuse defendants of monopolizing the generic warfarin market by controlling and misusing ACIC/Brantford's monopoly on clathrate.

To establish a violation of § 2, plaintiffs must prove that defendants possessed monopoly power, and willfully acquired or maintained that power in the relevant market. See United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966). The willful acquisition or maintenance of monopoly power is to be distinguished from growth or development that is the result of superior product, business acumen or historical accident. See id. at 571.

A. Defining the Relevant Market for Warfarin Sodium

Before proceeding further we think it helpful to define the relevant market for warfarin sodium. Evaluating market power begins with defining the relevant market. This inquiry will also prove useful for analyzing the § 1 allegations because a market definition provides the context against which to measure the competitive effects of an agreement. See, e.g., Copperweld v. Independence Tube Corp., 467 U.S. 752, 768 (1984) (rule of reason requires "an inquiry into market power and market structure designed to assess the combination's actual effect").

The goal in defining the relevant market is to identify the market participants and competitive pressures that restrain an individual firm's ability to raise prices or restrict output. The relevant market is defined as all products "reasonably interchangeable by consumers for the same purposes," because the ability of consumers to switch to a substitute restrains a firm's ability to raise prices above the competitive level. United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 395

(1956). Reasonable interchangeability sketches the boundaries of a market, but there may also be cognizable submarkets which themselves constitute the appropriate market for antitrust analysis. Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962). Defining a submarket requires a fact-intensive inquiry that includes consideration of "such practical indicia as industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors." Id. The term "submarket" is somewhat of a misnomer, since the "submarket" analysis simply clarifies whether two products are in fact "reasonable" substitutes and are therefore part of the same market. The emphasis always is on the actual dynamics of the market rather than rote application of any formula.

The district court ruled that the entire warfarin sodium market, including Coumadin, was the appropriate market. It had noted the chemical equivalence between Coumadin and generics, found that customers and vendors viewed the products as competing, and concluded that generics took market share from Coumadin. We have performed our own analysis of the Brown Shoe factors and we conclude to the contrary that in this case generics alone constitute the relevant market.

1. Generics - A Separate Market

It may seem paradoxical to believe that Coumadin and generic warfarin -- which have been certified by the FDA as

therapeutically equivalent -- are nevertheless in separate markets for antitrust analysis. Functional interchangeability is certainly a prima facie indication that consumers of one product might be willing to switch to the other in the face of a non-trivial price increase. Yet, in examining the competitive pressures that affect the ability of a lone generic manufacturer to raise prices or reduce output, we are persuaded that competition among generics creates those restraints. We note that there is not just one relevant customer group, and are mindful to consider the impact that patients, doctors, third-party payers, wholesalers, and chain pharmacies can have on the price and output of warfarin.

(a) Price Differential. First, the price differential between Coumadin and generics is plain, as are the variant pricing trends. Barr's generic was introduced at about 70 percent of Coumadin's price, and has since declined to 50 percent while Coumadin's price has stayed steady, creating a marked gap in price between the products. Coumadin's substantially higher prices is evidence of a distinct customer group with brand allegiance and/or high risk sensitivity that was unwilling to switch from the known brand name even in the face of a discounted alternative. That this group has remained loyal despite Coumadin's conspicuously higher prices strongly suggests inelastic demand. More significantly, this division of customers indicates there is little likelihood that price-sensitive generic

customers would switch to the higher-priced Coumadin when faced with an increase in generic prices.

When other generic competitors entered the market, Barr's prices dropped substantially, but Coumadin's remained virtually unchanged and even rose slightly. Not only did Barr's invoice prices drop a small, but statistically significant amount, but more importantly Barr admitted that Geneva's presence forced it to offer substantial off-invoice discounts and rebates. Barr's senior vice president of sales and marketing confirmed that Geneva's entry had a substantial effect on Barr's pricing, especially with large chain pharmacies and wholesalers. Regarding wholesalers, he testified Barr offered 15-20 percent rebates after Geneva entered, and with chain pharmacies, he confirmed that Geneva's entry cost Barr "many millions of dollars." As one example, he noted that Geneva's entry forced Barr to give rebates to the CVS and Walgreens chain pharmacies each in excess of a million dollars a year.

(b) Brown Shoe Distinguished. Defendants urge us not to evaluate the market based on pricing differentials since they believe the Supreme Court rejected such analysis in Brown Shoe, 370 U.S. at 326. In Brown Shoe, the Court did indeed reject Brown's claim that its medium priced shoes did not compete with its lower priced shoes. Applying Brown Shoe to the instant case, the district court agreed with defendants' position and held that "a division of the product lines based on 'price/quality' was

'unrealistic.'" 201 F. Supp. 2d at 269 (quoting Brown Shoe, 370 U.S. at 326). We cannot adopt this reasoning.

In Brown Shoe, customers and vendors viewed the differently priced shoes as competing, and the Court simply clarified that a price differential alone should not override observed market conditions. Further, in Brown Shoe there was a continuous spectrum of pricing, leading the court to conclude "[i]t would be unrealistic to accept Brown's contention that, for example, men's shoes selling below $8.99 are in a different product market from those selling above $9.00." Brown Shoe, 370 U.S. at 326. Here we find a substantial gap in pricing indicative of separate markets. Nor do we treat pricing as dispositive, but rather use pricing trends as one indicator of the impact each market participant has on overall price and output.

(c) Inelastic Demand. We also conclude that Coumadin's customers are displaying strongly inelastic demand. Overall generic penetration has not been as significant in the warfarin market as in other drug markets of comparable size: Barr's CEO testified that generic penetration after one year can be as high as 60 percent, but Barr projected only 35 percent penetration after a year and in fact captured just 8 percent of the warfarin market. Three-and-a-half years after generic warfarin was introduced, the generic substitution rate was just over 30 percent despite prices that were 40 percent lower than Coumadin. Such results indicate a substantial customer base that has not responded to lower prices.

Customers that have remained with Coumadin clearly do not perceive generics to be a reasonable substitute for it. Conversely, price-sensitive customers have flocked to the cheaper generic and are likely to view another inexpensive generic as a reasonable substitute. Plaintiffs' evidence suggests that upon generic entry, the consumer base split such that Coumadin and generics each faced smaller, distinct consumer groups.

Plaintiffs have offered evidence supporting plausible justifications for this trend. The narrow therapeutic index status of the drug may be having some effect on the risk-sensitivity of patients. Since proper dosing is tricky, patients must go through a lengthy introductory period of closely monitored dosage by their attending physician. Patients concerned about the potential for dosage problems may be especially unlikely to switch from a known entity even though they have to pay a higher price. Also, since Coumadin was the sole manufacturer of warfarin sodium for 35 years, there has been a lengthy opportunity to develop strong brand association and loyalty among patients and doctors.

(d) Different Distribution Chains. In addition, the distribution chain for generics is different in important ways from that of Coumadin. Wholesalers and chain pharmacies frequently stock Coumadin plus one generic version. Thus, for a substantial customer base, generic warfarin manufacturers compete among themselves for one slot rather than with Coumadin. Plaintiffs also offered evidence that Coumadin has been marketed

primarily to physicians, while generics target wholesalers and chain pharmacies. Not surprisingly, Geneva's entry affected Barr's pricing primarily with respect to wholesalers and chain pharmacies.

(e) Industry Recognition. Industry recognition is also notable. Although the industry undoubtedly acknowledges that Coumadin competes to some extent with generics, generic manufacturers treat each other as the entities which most directly affect their pricing and output decisions. With respect to generic drugs generally, Dr. Sherman, defendant ACIC/Brantford's principal owner, stated:

> Given that generic drug products are universally cheaper than original brand products, the first generic drug company, upon entry of a particular drug market, will automatically capture a sizeable portion of the sales of the drug, thereby creating the generic drug market.
>
> When subsequent generic drug companies enter the market in respect of the particular drug, these generic companies compete with the first and prior generic drug companies as to the share of the generic drug market. . . . As a result, from the standpoint of the patentee drug company it matters not whether there is one, two, ten or twenty generic drug companies since each successive generic entrant only gains market share from the previous generic competitors and not from the patentee.

Several Apothecon employees also testified that they make pricing decisions as to generic warfarin sodium based on generic competition, not competition from Coumadin. Apothecon's former product manager stated "We compete against other generics, we do not compete against Coumadin. . . . [W]e do not set our prices

based on what the brand is doing." Plaintiff's expert pointed out that Barr's website stated, "Barr focuses its generic research and development activities on generic products that have significant barriers to entry," and such barriers would apply only to generic competitors.[3]

Barr's own price predictions for generic warfarin sodium led it to conclude that it could charge 70 percent of Coumadin's price in the first year, 50 percent in the second year and 40 percent in the third year. These predictions assumed one generic competitor entering in the second year and another entering in the third year. This effect is consistent with the literature on generic drug competition describing how generic pricing is a function of the number of generic competitors. See generally Congressional Budget Office, How Increased Competition from Generic Drugs Has Affected Prices and Returns in the Pharmaceutical Industry, at 32 (1998); Roy Levy, The Pharmaceutical Industry: A Discussion of Competitive and Antitrust Issues in an Environment of Change (Federal Trade Commission Bureau of Economics Staff Report, Mar. 1999); David Reiffen & Michael R. Ward, Generic Drug Industry Dynamics

[3] We note that Barr appears to have changed the wording on its website, although consistent with that language the site now also states that "[Barr's] generic product development activities focus on the selection of pharmaceutical products where these selection criteria may limit the potential number of generic competitors." See http://www.barrlabs.com/pages/corphist.html (last visited June 7, 2004) (emphasis added). Since the district court did not have the benefit of this statement before it, we do not rely on it in reaching our decision.

(Federal Trade Commission, Working Paper No. 248, Feb. 2002), at http://www.ftc.gov/be/workpapers/industrydynamicsreiffenwp.pdf (last visited June 4, 2004).

(f) No Supply Substitution. Moreover, the evidence shows there was very limited potential for supply substitution in the generic market. A manufacturer's ability to raise prices or reduce output is not only constrained by current substitutes but also by actual or potential competitors capable of providing new competition quickly with little sunk costs.

We can readily dismiss potential substitution from all entities other than DuPont. We find evidence of particularly high barriers to entry resulting both from limited supply of clathrate and from the regulatory requirements to sell generics. We find no evidence that other generic pharmaceutical manufacturers could quickly and easily have entered the warfarin market if generic warfarin prices were raised substantially above marginal cost. Barr's own process of reaching the warfarin market, which began in 1991 and ended in 1997, belies its claim of easy entry, as does its mission statement which acknowledges seeking drugs with high barriers to entry.

2. DuPont Unlikely to Enter Generic Market

Competition from DuPont is not so straightforward. DuPont already sold warfarin sodium, had access to a clathrate supply, and had contacts in the distribution chain. However, DuPont would have had strong incentives not to introduce its own generic, even if it felt that Barr was charging supra-competitive

prices. No doubt it observed that within a few years, there would be increased competition among generics, and its own entry would simply accelerate the decline of generic prices and thereby accelerate the segmentation of the market. Since at best it would be substituting sales of a generic at a lower price for sales of Coumadin at a higher price, all with the same cost of production, DuPont's entry into the generic market could only hurt its bottom line. DuPont likely could only have had success selling generic warfarin if it had been able to seize the substantial advantage that a first mover has in the generic market, and even then, it obviously found any advantage would be outweighed by the erosion of sales of Coumadin. DuPont had substantial success maintaining its customer allegiance at the higher price, and we believe it posed no threat of generic entry and therefore no check on generic prices.

In sum, the totality of the evidence convinces us that once Barr entered the market, the market became segmented so that Coumadin and Barr each had smaller, distinct customer groups. After the initial segmentation, Barr's price was impacted much more by Geneva's entry than by Coumadin. For example, plaintiffs have pointed to data indicating that Geneva's entry affected Barr's pricing of its dosage strengths also sold by Geneva, but not of its other dosage strengths. This evidence strongly suggests to us that competition among generics is the competitive force that restrains a single generic competitor from raising prices or restricting output.

We therefore hold that the relevant market for our purposes is the market for generic warfarin sodium tablets.

B. Monopoly Power

We turn now to discuss proof of monopoly power in the generic warfarin sodium market. Monopoly power is "the power to control prices or exclude competition." E.I. du Pont, 351 U.S. at 391. It can be proven directly through evidence of control over prices or the exclusion of competition, or it may be inferred from a firm's large percentage share of the relevant market. Tops Mkts., 142 F.3d at 98. Plaintiffs seek to demonstrate monopoly power through both methods.

1. Direct Evidence of Monopoly Power

With respect to direct evidence, plaintiffs primarily rely on the report of their expert, Dr. Robert Larner. The expert's market analysis led him to conclude that in the absence of generic competition Barr had charged a monopoly price that lasted until plaintiffs finally entered the market. Plaintiffs offered evidence to show that after their entry Barr lowered its price and offered substantial price discounts and rebates. Plaintiffs contend this is direct proof that Barr controlled prices during its period of exclusivity. Further, they assert that Barr's first-mover advantage led to substantial entrenchment, such that it continued to control 80 percent of generic sales several years after it faced competition. This, they think, constituted exclusion of competition, which likewise is direct proof of monopoly power.

This direct proof is at best ambiguous. We recognize plaintiffs' pricing proof may of course be indicative of monopoly power. However, absent from plaintiffs' proffer is any analysis of Barr's costs. Hence, we do not know whether the allegedly elevated prices led to an abnormally high price-cost margin. See 2A Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law ¶ 501 (1995). Nor do plaintiffs present direct evidence that defendants restricted output, asking us to infer the basis for the higher prices. Moreover, plaintiffs' assertion with regard to Barr's continuing high percentage market share is not direct evidence, but rather requires that we engage in the sort of inference more appropriate for market share analysis.

Where direct evidence is unavailable or inconclusive, as here, monopoly power may be inferred from high market share. Although market share is not functionally equivalent to monopoly power, it is nevertheless highly relevant to the determination of monopoly power. Tops Mkts., 142 F.3d at 98.

2. Monopoly Power Through Market Share

Having defined the relevant market, we consider whether Barr's high market share leads to a fair inference of monopoly power. Courts will only draw that inference after considering market share in conjunction with other characteristics of the market, such as "the strength of competition, the probable development of the industry, the barriers to entry, the nature of the anticompetitive conduct and the elasticity of consumer

demand." Int'l Distribution Ctrs., Inc. v. Walsh Trucking Co., 812 F.2d 786, 792 (2d Cir. 1987).

Defendants do not dispute that Barr was the sole manufacturer of generic warfarin sodium during the period from July 1997 through October 1998. This alone creates a strong inference of monopoly power. The nature of defendant's pricing activities also supports an inference of monopoly power. However, we think there is a question of fact as to whether this is the type of competitive advantage about which the antitrust laws should be concerned. Every first mover into a new market has a monopoly during its initial period of exclusivity. The antitrust laws have not been applied to condemn the transient advantage inherent in being a first mover because to do so would stifle innovation. See AD/SAT, a Division of Skylight, Inc. v. Associated Press, 181 F.3d 216, 229 (2d Cir. 1999) (per curiam) (quoting 2A Areeda & Hovenkamp, supra, ¶ 506d, at 103 ("[T]ransitory power may safely be ignored by antitrust law" because market forces would end that power fairly quickly)); Dimmitt Agri Indus., Inc. v. CPC Int'l Inc., 679 F.2d 516, 530 (5th Cir. 1982) ("Transitory control over prices, ever present in a competitive economy . . . is not the subject of the completed monopolization offense.").

Barr's period of exclusivity lasted about 15 months, although plaintiffs allege that the effects of this exclusivity period lasted much longer. This may or may not be of sufficient duration to have significant anti-competitive effects. In any

event, whether Barr's advantage should be viewed as a transitory advantage inherent in being a first entrant or a substantial impediment to competition involves a genuine question of material fact. Plaintiffs have satisfied their burden of producing evidence that the effects of Barr's advantage were substantial and that competition overall was impaired. Such an issue of material fact should not be resolved at the summary judgment stage because to do so requires weighing the evidence, which is a matter left for a jury.

The final element of the monopolization charge is that defendants must have willfully acquired or maintained their advantage as opposed to succeeding through a superior product, business acumen or historical accident. On this point, plaintiffs have alleged a conspiracy between Barr and ACIC/Brantford, embodied in their exclusivity agreement and in their actions towards plaintiffs. Plaintiffs believe Barr and ACIC/Brantford sought to leverage ACIC/Brantford's monopoly in the clathrate market in a manner that attempted both to assure Barr's monopoly in the downstream generic warfarin sodium market and simultaneously helped reinforce ACIC/Brantford's monopoly in the clathrate market. Because of the close connection of these allegations to the dynamics of the clathrate market, we discuss the evidence of intent as part of our analysis of the clathrate market, where we conclude that plaintiffs presented satisfactory evidence that Barr willfully acquired or maintained its monopoly,

see Grinnell Corp., 384 U.S. at 570-71, and that both defendants conspired to do so.

III Clathrate Market

A. Section 2 Claims Stated

Plaintiffs also allege that ACIC/Brantford monopolized the clathrate supply market and that both defendants, ACIC/Brantford and Barr, conspired to do so. Defendants respond that plaintiffs' arguments regarding ACIC/Brantford's asserted clathrate monopoly relate to the purported effort to monopolize the generic warfarin sodium market. They maintain that plaintiffs have not contended that ACIC/Brantford's actions had the effect of keeping other clathrate suppliers out of the clathrate market and that therefore plaintiffs' § 2 claim in the clathrate market must fail.

Defendants are correct that § 2 is often concerned with the exclusion of competitors. However, plaintiffs contend that ACIC/Brantford and Barr conspired to mislead and deceive them in order to delay Geneva from pursuing and developing an alternate supply of clathrate. They have thus successfully alleged that, by so preventing the plaintiffs from developing a rival to ACIC/Brantford, the defendants "willful[ly] . . . maint[ained]" ACIC/Brantford's monopoly. Id. Although the plaintiffs were not themselves excluded from the clathrate market, they have sufficiently stated § 2 claims regarding that market and have standing to bring them, see Blue Shield of Va. v. McCready, 457 U.S. 465, 479-81 (1982). Thus, it is a question for the jury

whether ACIC/Brantford had monopoly power in the clathrate market, and if so, whether defendants abused ACIC/Brantford's market power.

B. No Other Viable Suppliers of Clathrate Available

In determining if ACIC/Brantford had monopoly power in the clathrate supply market, it is crucial to determine whether other suppliers besides ACIC/Brantford were available as potential generic warfarin sodium manufacturers.

The district court found other suppliers of clathrate were available to plaintiffs in 1995-98, and ruled that ACIC/Brantford did not have a sizeable market share. Specifically, it identified Hoechst Celanese and Chemoswede as companies prepared to sell clathrate. It also mentioned several other manufacturers that could have developed the capability of processing clathrate, if plaintiffs had pursued the matter. However, viewing the facts as we must in the light most favorable to plaintiffs, the issue of whether ACIC/Brantford effectively was the only source available to generic manufacturers in 1995-98 is in sufficient dispute so that it should not have been resolved on a motion for summary judgment. We enumerate ten other possible suppliers of clathrate. They are: Hoechst, Chemoswede, Lachema, Taro, Arenol, Vinchem, Diosynth, Banyan, Chemagis, and Shanghai. Plaintiffs' proof suggests that for one reason or another none of them could actually be considered a viable supplier of clathrate during the relevant time period.

Hoechst. Geneva received R&D samples from Hoechst and considered entering into a supply agreement with Hoechst. Plaintiffs raise serious questions about Hoechst's willingness and ability to provide clathrate. Hoechst had not filed a Drug Master File with the FDA and indicated it would not be able to for some time. According to plaintiffs, Hoechst was experiencing difficulties with the stability of its clathrate production, reporting environmental problems due to clathrate's toxicity that were hampering its development. Hoechst had little interest in solving this problem. A Hoechst interoffice memo describes Geneva's frustration with Hoechst's clathrate development problems, and describes Dr. Patel's suggestion that if they could not provide better service they should not be in the business. The memo's author states "I resisted the urge to tell him that we are likely to accept his advice." Hoechst eventually sold the only facility it had working to develop clathrate. Barr's purchasing manager Mary Casatelli confirmed that Barr considered Hoechst's viability as a clathrate supplier to be a "moot point" because it had decided to close its manufacturing facility and put it up for sale.

Chemoswede. Chemoswede was DuPont's supplier of clathrate for Coumadin. As of mid-1995 Chemoswede was under contract to supply clathrate exclusively to DuPont, and DuPont purchased Chemoswede outright in 1997. Barr's Paul Bisaro testified in his deposition that Chemoswede would not sell clathrate to Barr because of its obligations to DuPont. Barr's chairman Bruce

Downey also testified that the result of DuPont's purchase of Chemoswede was that Chemoswede would no longer supply to the generic industry. Despite this testimony, the district court decided that Chemoswede should be considered an available source. Although acknowledging that "most or all of its clathrate was dedicated to DuPont," the court believed that "internal or captive sources of a product are still included in the relevant market." 201 F. Supp. 2d at 272. In light of our market definition of generic warfarin sodium, this conclusion no longer is apt. The question here is availability of clathrate to generic manufacturers, which affects the supply of generic warfarin sodium. Chemoswede's clathrate affects neither, and therefore has no impact on a putative monopolist's ability to control supply of generic warfarin.

Lachema. Plaintiffs ordered a 15 kg sample of clathrate from Lachema in February 1998. When Lachema failed to fill this order after a 6-9 month delay, Geneva abandoned the order realizing that Lachema could not supply them. Barr's Mary Casatelli testified that when she left Barr in November 1997, she had concluded "there was no way" Lachema could have been an approved supplier.

Taro. Sergio Gertrajdman, an employee of ACIC/Brantford, testified that before he left he attempted to secure clathrate from Taro, but Taro refused to sell. Plaintiffs presented evidence that Taro did not have a Master File on file with the

FDA and did not enter the market until September 1999, two full years after Geneva sought a clathrate source.

Arenol. Arenol evidently worked on a clathrate process in 1997 and 1998, although it too did not file a Master File for clathrate. Arenol's plant was eventually destroyed by fire in August 1998, but even at that late date, plaintiffs maintain that Arenol had not even begun to prepare to supply clathrate.

Vinchem. Vinchem was a broker, not a manufacturer of clathrate. Plaintiffs at one point received some clathrate from Vinchem, but they were unable to determine that the source had filed the requisite Master File. Geneva ultimately concluded that Vinchem was unable to deliver any clathrate.

Diosynth. Diosynth potentially could have provided clathrate, but had no viable process for synthesizing or manufacturing clathrate in 1996-97. According to plaintiffs, Diosynth was unable to develop a process until September 1999, two years after Geneva's Abbreviated New Drug Application was approved.

Banyan. In 1995, Geneva and Banyan amended their existing development agreement to include development of clathrate. At the time, Banyan had no facilities capable of producing clathrate nor did it have a process for manufacturing clathrate. Because Banyan was not expected to have clathrate production capabilities for a substantial period of time, plaintiffs did not consider Banyan a viable source. After ACIC/Brantford rejected plaintiffs' purchase order in 1997, plaintiffs made an effort to

accelerate Banyan's capabilities, and were able to enter the market using Banyan clathrate in October 1998.

Chemagis. Geneva met with Chemagis to discuss the purchase of clathrate. Chemagis never filed a Master File for clathrate. Chemagis refused to develop a process to manufacture clathrate unless plaintiffs paid the upfront costs of establishing a new facility. According to plaintiffs, Chemagis' development time frame was too long, the startup costs were prohibitive, and its production capability was at best speculative.

Shanghai. Geneva received samples of clathrate from Shanghai in early 1997. However, Shanghai had not filed a Master File for clathrate, and Geneva understood that its facilities to produce clathrate had not been built. Believing Shanghai was in the very early stages of development, plaintiffs concluded it was even further behind than Banyan.

It is significant that plaintiffs' description of the state of the clathrate industry in 1995-98 is consistent with Barr's own records and reports. A Barr memorandum to investors commented that warfarin sodium featured "unique raw material sourcing issues," and that it had secured "an exclusive source of active ingredient that to date is the only source available to the generic industry." Barr's CEO Bruce Downey also testified that Barr had been actively looking for a backup material supplier in the period before its launch, and he stated "it was our judgment that there were no others, other than the one that we had worked with."

The factual dispute over the availability of clathrate precludes any definitive assessment of ACIC/Brantford's power in the clathrate industry, making the grant of summary judgment on this issue inappropriate.

C. Willful Acquisition or Maintenance of Monopoly Power

We have found material questions of fact regarding Barr's monopoly power in the generic warfarin sodium market and ACIC/Brantford's monopoly power in the clathrate industry. Plaintiffs have presented sufficient evidence on both of these issues to satisfy their burden at the summary judgment stage. To succeed on their claims however plaintiffs must also demonstrate that defendants willfully acquired or maintained their monopoly power as opposed to having achieved their advantage through superior business practice or historical accident.

Several Barr statements can be interpreted as suggesting an intent to seize the sole supply of clathrate in order to monopolize the generic warfarin market. A memorandum dated April 14, 1997 from Mary Casatelli, Barr's purchasing manager, to Paul Bisaro, Barr's vice president and general counsel, identifies just two manufacturers capable of making clathrate, DuPont Chemoswede and ACIC/Brantford. The memo closes with the statement, "We should give thought to the strategy we should pursue in order to deny a viable source to Invamed." Mary Petit, Barr's director of pharmacology and senior vice president of operations, added a handwritten note to the memorandum: "Paul - What is this worth to us - Will purchasing the Coventry

facility's supply (even tho we can't use it) be less $$ than our losses if Invamed enters the market? Would ACIC/Brantford or Barr purchase the Coventry R/M and sell to ACIC/Brantford's overseas customers to keep them out of supplying Invamed?" Defendants attempt to portray these notes as isolated thoughts of non-decision-making employees, but we think a jury should decide what weight should be given these statements.

Later in 1997 a "Product Development Strategy" prepared for a Barr board of directors' meeting in September 10-11, 1997, states that Barr focuses on lower sales volume drugs with high barriers to entry that limit competition. The memorandum describes Barr's efforts to secure a source of raw materials for generic warfarin sodium and notes that its "investment of time and capital resulted in an exclusive source of active ingredient that to date is the only source available to the generic industry."

Further, an internal Barr memorandum titled "Branded Pharmaceutical Company Generic Defense Strategies" contains a section entitled "Preserving Market Share: Warfarin Case Study" that includes the headline "Block Generic Competition by Controlling Raw Materials." Ms. Casatelli believed that denying Geneva a source of clathrate was "simply good business practice." Barr's chairman, Bruce Downey, confirmed that Barr was not successful in finding backup clathrate suppliers, and he believed generic competition would be limited due in part to the small number of FDA-approved raw material suppliers.

Plaintiffs also provided evidence relating to why they believed they had an oral contract with ACIC/Brantford. Sergio Getrajdman, ACIC/Brantford's sales representative who dealt with Geneva, recalled telling Geneva's Dr. Dave that ACIC/Brantford could provide clathrate to Geneva. Getrajdman stated that he had not been aware that ACIC/Brantford had even considered an exclusive agreement on clathrate: "I never - I would have never approached [Dr. Dave] with the product had there been discussion of an exclusive." Getrajdman testified that he thought ACIC/Brantford was obligated to provide clathrate to Geneva and that he repeatedly advised people at ACIC/Brantford of that obligation. Antoniette Walkom, who was the author of ACIC/Brantford's Master File reference letter in support of Geneva, testified similarly that the letter reflected a commitment by ACIC/Brantford to provide clathrate to Geneva.

In September 1996 after ACIC/Brantford acquired ACIC, ACIC/Brantford wrote to Dr. Dave and stated, "According to our records, letters of access to the following U.S. files have been provided to your firm. Please kindly review the list below and notify us of any omissions . . ." Warfarin sodium was on the list. Geneva's Dr. Mahendra Patel testified that on several occasions, ACIC/Brantford actively encouraged Geneva to develop warfarin sodium using ACIC/Brantford clathrate, and repeatedly solicited Geneva's business.

After the exclusive agreement was signed, ACIC/Brantford was elusive in its responses to Geneva's requests for more clathrate.

Getrajdman wrote in a memo dated August 23, 1995, "I contacted [Geneva's Mahendesh] Patel with the strategy we discussed Friday in Toronto, namely, to discourage him from proceeding w/ development on the pretext that others were ahead of him and his market share would thus be proportionately smaller. I was unsuccessful . . ." ACIC/Brantford's Telemagic printout contains entries of Getrajdman's response to Dr. Dave's January 12, 1996 request for clathrate: he stalled until February 5, "but we must decide whatever I am to tell Invamed by then: we had the chance to tell them face to face in Germany, but [ACIC/Brantford President Luciano Calenti] felt the time was not right."

ACIC/Brantford evidently developed several strategies for how to tell Geneva that they would no longer provide clathrate. One strategy was to give the false story that for capacity reasons, they would be moving their production facility to Mexico. Getrajdman noted at the bottom of a memo, "Time to bite the bullet. If I go with the switching site story, I need dates as soon as possible." He also placed an entry in the Telemagic machine dated January 16, 1996: "The fact that they're putting things in writing makes me nervous." As late as mid-1997, two full years after the exclusive supply agreement was signed, it is clear that ACIC/Brantford still had not told Geneva it could not supply clathrate.

Additionally, plaintiffs provided some evidence that Barr was involved with ACIC/Brantford in the decision to reject Geneva's purchase order in September 1997. Barr Chairman Bruce

Downey stated that Barr was contacted by ACIC/Brantford and informed that ACIC/Brantford had received a purchase order from Geneva for commercial quantities of clathrate, "which sale was prohibited by our contract. And we were asked whether we were going to stand on our rights as embodied in that contract and we said yes." Defendants dispute their involvement in the decision, but given the totality of the circumstances suggesting intent to monopolize, we are inclined to allow a jury to make that factual determination.

The evidence as a whole could lead a reasonable jury to conclude that Barr and ACIC/Brantford intended to take advantage of ACIC/Brantford's clathrate monopoly, intended to create a monopoly for Barr in the generic warfarin sodium industry, and intended to keep their agreement secret so that Geneva would not take steps to develop an alternate source. We discuss the specific evidence of agreement in the following section. While there may be some pro-competitive benefits of exclusive supply agreements, it is difficult to conceive of the pro-competitive benefits that would be derived from this level of deception, and, also, it is difficult to believe that defendants' advantage came about through better business practices or historical accident. The district court's grant of summary judgment on plaintiffs' § 2 claims must therefore be reversed.

IV Section 1

Section 1 of the Sherman Act prohibits "[e]very contract, combination in the form of trust or otherwise, or conspiracy, in

restraint of trade or commerce among the several States." 15 U.S.C. § 1. As the language states, § 1 targets concerted action between two or more entities. Independent conduct falls outside the purview of this provision. Monsanto Co. v. Spray-Rite Serv. Corp., 465 U.S. 752, 761 (1984). To prove a § 1 violation, a plaintiff must demonstrate: (1) a combination or some form of concerted action between at least two legally distinct economic entities that (2) unreasonably restrains trade. See Tops Mkts., 142 F.3d at 95; Capital Imaging Assocs., P.C. v. Mohawk Valley Med. Assocs., Inc., 996 F.2d 537, 542 (2d Cir. 1993). The parties agree that the conduct at issue here does not fall within the narrow range of behavior that is considered so plainly anti-competitive and so lacking in redeeming pro-competitive value that it is "presumed illegal without further examination," that is, it is illegal per se. Broad. Music, Inc. v. CBS, 441 U.S. 1, 8 (1979). Accordingly, the case before us is evaluated under the rule of reason, and defendants' conduct will be deemed illegal only if it unreasonably restrained competition. Atl. Richfield Co. v. USA Petroleum Co., 495 U.S. 328, 342 (1990).

Under the rule of reason, the plaintiffs bear an initial burden to demonstrate the defendants' challenged behavior "had an actual adverse effect on competition as a whole in the relevant market." Capital Imaging, 996 F.2d at 543. Because the antitrust laws protect competition as a whole, evidence that plaintiffs have been harmed as individual competitors will not suffice. Atl. Richfield, 495 U.S. at 343-44. If the plaintiffs

satisfy their initial burden, the burden shifts to the defendants to offer evidence of the pro-competitive effects of their agreement. Capital Imaging, 996 F.2d at 543; Bhan v. NME Hosps., Inc., 929 F.2d 1404, 1413 (9th Cir. 1991). Assuming defendants can provide such proof, the burden shifts back to the plaintiffs to prove that any legitimate competitive benefits offered by defendants could have been achieved through less restrictive means. Capital Imaging, 996 F.2d at 543. Ultimately, the factfinder must engage in a careful weighing of the competitive effects of the agreement -- both pro and con -- to determine if the effects of the challenged restraint tend to promote or destroy competition. Id.

A. Contract, Combination or Conspiracy

To satisfy the concerted action requirement, plaintiffs allege a conspiracy between Barr and ACIC/Brantford to restrain trade in the clathrate and generic warfarin sodium markets. In addition, they insist the exclusive supply and confidentiality agreements themselves violate § 1. Although the district court only addressed the conspiracy argument, we think the complaint fairly read encompasses both allegations.

To withstand a summary judgment motion, plaintiffs must present evidence of an actual illegal combination, and such evidence must satisfactorily cast doubt on inferences of independent action or proper conduct by defendants. Matsushita, 475 U.S. at 588. The evidence must prove defendants had an intent to adhere to an agreement that was designed to achieve an

unlawful objective; specific intent to restrain trade is not required. Capital Imaging, 996 F.2d at 545.

The district court ruled that there was a material question of fact regarding Barr's knowledge of the interactions between Geneva and ACIC/Brantford. The court held that plaintiffs' evidence was sufficient to support an inference that Barr was aware that ACIC/Brantford had supplied Geneva with enough clathrate to file its Abbreviated New Drug Application, and that it was industry practice that such supply created an implied contract.

However, the district court then ruled the conspiracy theory must fail because there was no evidence that the exclusive agreement was anything but a legitimate business tactic by ACIC/Brantford. It held that lack of intent by one party, here ACIC/Brantford, precludes a conspiracy to monopolize. While we agree with the district court's statement of the law, we believe it inappropriately resolved factual disputes in reaching its conclusion that there was no conspiracy.

The testimony as a whole as well as the various memos and internal documents support an inference of conscious, concerted action intended to take advantage of ACIC/Brantford's monopoly on clathrate. Plaintiffs presented circumstantial evidence that Barr and ACIC/Brantford conspired to control the only source of clathrate available and to deceive plaintiffs so that plaintiffs would not take steps to develop an alternate supply. There was evidence that Barr demanded the confidentiality agreement in

order to delay Geneva's entry and thwart the development of alternative supplies. Testimony further showed that both Barr and ACIC/Brantford understood the confidentiality agreement to require silence by ACIC/Brantford in its dealings with Geneva, suggesting that ACIC/Brantford's deceptions were in furtherance of the agreement.

Also, the Casatelli/Petit memorandum urging Barr to purchase excess clathrate in order to block Geneva's entrance is particularly damning. The district court dismissed this memorandum because the court found "no evidence that this document represents any employee's view but that of Casatelli and Petit, nor that their views were ever acted upon." 201 F. Supp. 2d at 277. We doubt the soundness of this conclusion since at least one was a senior executive. But, in any event, it represents an improper weighing of the evidence by the court, which should have instead looked at the evidence in the light most favorable to the non-moving party. See, e.g., Adjustrite Sys., Inc. v. GAB Bus. Servs., Inc., 145 F.3d 543, 547 (2d Cir. 1998).

We also believe the exclusive dealing arrangement itself satisfies the § 1 requirement of coordinated action. Since Barr was aware that clathrate was in short supply -- and in fact believed ACIC/Brantford was the only available supplier -- the decision to use an exclusive supply contract as opposed for example to a requirements contract, as well as its demand for a confidentiality clause, suggest intent to control the supply of

clathrate. The evidence as a whole from telephone records, deposition testimony, and internal documents, indicates "a conscious commitment to a common scheme designed to achieve an unlawful objective." Monsanto, 465 U.S. at 768.[4] Thus, plaintiffs satisfied the concerted action requirement at this stage of the litigation.

B. Unreasonable Restraint of Trade

Exclusive dealing arrangements implicate § 1 because they have the potential unreasonably to exclude competitors or new entrants from a needed supply, or to allow one supplier to deprive other suppliers of a market for their goods. See Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 45 (1984) (O'Connor, J., concurring). Such agreements may also, however, have pro-competitive purposes and effects, such as assuring steady supply, affording protection against price fluctuations, reducing selling expenses, and promoting stable, long-term business relationships. See Tampa Elec. Co. v. Nashville Coal

[4] Theorists note it usually does not further harm competition for a monopolist in one market to leverage its advantage into a monopoly in a downstream market. This is so because the firm already has a monopoly and can extract monopoly returns. See, e.g., Robert H. Bork, The Antitrust Paradox, 228-29, 372-75 (1978). Still, the window of monopoly opportunity is unique in this case. ACIC/Brantford recognized its period of exclusivity would be brief, and that the best way to take advantage of its exclusivity was to work with Barr to gain a monopoly in the generic warfarin sodium market. If Barr too could gain an entrenched advantage, ACIC/Brantford's clathrate advantage could last even after other clathrate suppliers entered that market. Therefore, despite allegedly possessing monopoly power, ACIC/Brantford would still have had an incentive to use that power to gain advantage downstream.

Co., 365 U.S. 320, 333-35 (1961). In order not to condemn the positive aspects of exclusive dealing agreements, courts must take care to consider the competitive characteristics of the relevant market. Exclusive dealing is an unreasonable restraint of trade and a § 1 violation only when the agreement freezes out a significant fraction of buyers or sellers from the market. Jefferson Parish, 466 U.S. at 45; cf. Standard Oil Co. v. United States, 337 U.S. 293 (1949).

The exclusive dealing agreement in the present case is of particular concern because of the alleged bottleneck in the clathrate supply chain. Plaintiffs have created a material dispute of fact as to whether ACIC/Brantford effectively controlled the entire supply of clathrate available to generic warfarin sodium manufacturers during the period at issue. There is also evidence of high barriers to entry, meaning that potential suppliers could not easily enter the market. To the extent plaintiffs' theory is accurate, the exclusive dealing agreement had the potential to freeze competitors out of the generic warfarin sodium market.

Plaintiffs bear the initial burden to demonstrate an actual adverse effect on competition. We have not required proof of market power in § 1 cases. If plaintiff can demonstrate an actual adverse effect on competition, such as reduced output, see FTC v. Indiana Fed'n of Dentists, 476 U.S. 447, 460-61 (1986), there is no need to show market power in addition. See K.M.B.

Warehouse Distribs., Inc. v. Walker Mfg. Co., 61 F.3d 123, 128-29 (2d Cir. 1995).

In addition to the somewhat inconclusive evidence of Barr's warfarin sodium pricing, plaintiffs presented evidence that the exclusive dealing arrangement reduced the supply of clathrate available to generic manufacturers. They offered evidence that ACIC/Brantford's own production plans called for the production of a greater amount of clathrate than Barr intended to purchase. This output was effectively lost to the generic warfarin sodium industry because of the exclusive terms of the contract. In addition, for the reasons previously discussed, plaintiffs have created a genuine issue of material fact regarding ACIC/Brantford's market power in the clathrate market and Barr's market power in the generic warfarin sodium market. Their proffer is sufficient to satisfy their initial burden under the rule of reason.

The burden then shifts to defendants to offer pro-competitive justifications for the arrangement. Even if we credit defendants' evidence, the essential facts are in dispute. The period of 1995-98 was a period of uncertainty in an emerging market. Supplies were difficult to procure, and the number of actual or potential generic warfarin sodium manufacturers was unknown, in part due to delays relating to FDA approval. This was a time when it might make particular sense for a supplier to secure a ready buyer and for a buyer to secure a steady supply of materials. Were there other clathrate competitors available, a

point which is in dispute, this exclusive arrangement could have significant pro-competitive benefits both to the signatories and to competition overall.

The calculus of course changes if ACIC/Brantford was indeed the sole available supplier, and the evidence suggests Barr and ACIC/Brantford at least suspected that was the case. If so, then an exclusive dealing agreement that dedicated all that supply to one buyer could freeze out competition to an extent that greatly outweighed any pro-competitive effects. At the least, such a situation would heighten the need to consider if less restrictive means could have achieved the pro-competitive benefits of an exclusive dealing arrangement without totally foreclosing competition.

The issue of duration which troubled us in considering § 2 is also relevant here: a transitory advantage does not significantly harm competition and therefore should not violate § 1, but plaintiffs have provided at least some evidence to suggest that this was not a transitory advantage, but rather was a substantial impediment to competition. For example, Apothecon's general manager reported that even though its offer price to the Eckerd and CVS drugstore chains was as much as 25 percent below Barr's, neither was willing to leave Barr after having devoted substantial time to switching patients and getting their pharmacists comfortable with the new product. The assessment of long-term effects depends greatly on credibility of the evidence, which is the task of the jury.

Once again, the district court resolved crucial factual disputes against the non-moving party on a motion for summary judgment. We think plaintiffs' evidence provides a prima facie case of a § 1 violation, and the district court should not have terminated the case on summary judgment.

V Clayton Act Section 7

We pass now to the claimed violation of the Clayton Act. Section 7 of the Clayton Act prohibits mergers or acquisitions if the effect "may be substantially to lessen competition, or to tend to create a monopoly." 15 U.S.C. § 18 (2000). Prior to 1996, Apotex, which is owned indirectly by Dr. Sherman, had owned 75 percent of ACIC/Brantford. In 1996 Apotex purchased the remaining 25 percent to become ACIC/Brantford's sole owner. Plaintiffs claim the 1996 purchase tended to impede competition and monopolize the warfarin sodium market in violation of § 7 because the acquisition enabled defendants to misuse ACIC/Brantford's monopoly in the clathrate market to gain competitive advantage in the warfarin sodium market. Due to the various parent/subsidiary relationships connected to Apotex, plaintiffs included as defendants to this claim Apotex, Dr. Sherman, Apotex Holdings, Inc., Sherman Delaware, Inc. and Barr.

The district court dismissed the § 7 claim against all entities except Apotex because it ruled that "the only entity that may be held liable under § 7 is the acquirer, Apotex Inc." 201 F. Supp. 2d at 279. The district court gave no explanation for why defendants Dr. Sherman, Apotex Holdings, Inc. and Sherman

Delaware, Inc., were not also potentially liable since the Clayton Act by its terms applies to both "direct and indirect" acquisitions, and the court had previously found that Dr. Sherman, through several subsidiaries, owned 100 percent of Apotex Holdings and 100 percent of Sherman Delaware, which combined own 100 percent of Apotex. Aside from pointing out that plaintiffs cited no cases that extend liability under § 7 beyond the acquirer, the court offered no analysis of its own.

While we find sparse case law either supporting or rejecting the district court's conclusion -- indeed only one case seems to have addressed the question head on, see Cmty. Publishers, Inc. v. Donrey Corp., 882 F. Supp. 138 (W.D. Ark. 1995) -- the Clayton Act's application to "direct or indirect" acquisitions suggests to us that parent/subsidiary relationships, or any other corporate structure, ought not preclude application of the Clayton Act § 7 to any entity that had an active role in an acquisition that tends "substantially to lessen competition." However, we need not decide in this case whether any defendant that directly or indirectly owned Apotex played a sufficient role to be held liable, for we hold that plaintiffs have failed to demonstrate that the acquisition itself was likely to impair competition.

Although § 7 of the Clayton Act targets restraint of trade and monopolization, it is not co-extensive with the Sherman Act. After § 7 was amended in 1950, the Supreme Court recognized that § 7 was intended to be a pre-emptive tool that gave the Federal

Trade Commission and the courts the power to stop mergers that "tended" to impair trade, even before the effects reached the level of violating the Sherman Act. See Brown Shoe, 370 U.S. at 317; see also id. at 312-23 (surveying the history and purpose of § 7 in light of the 1950 amendments). Section 7 therefore provides for scrutiny of a transaction to evaluate if the acquisition will tend to increase concentration of market power and/or inhibit competition. See Copperweld, 467 U.S. at 777. The Supreme Court also confirmed that the focus of § 7, like the Sherman Act, is on competition not competitors. Brown Shoe, 370 U.S. at 320.

Plaintiffs' allegations as to the specific anti-competitive effects of Apotex's purchase of ACIC/Brantford are meager indeed, occupying but a single paragraph of their appellate brief. As best we can glean, plaintiffs allege that Apotex, Dr. Sherman, and the various subsidiaries were all passive investors in ACIC/Brantford prior to 1996, but that their purchase in 1996 of the remainder of ACIC/Brantford's shares enabled them to take anti-competitive actions. According to plaintiffs, lack of a minority shareholder meant that defendants were free to take steps that were not in ACIC/Brantford's economic interests, such as misleading Geneva and refusing to fill Geneva's order for clathrate. Plaintiffs assert that these actions were a misuse of ACIC/Brantford's monopoly in the clathrate market designed to gain advantage in the generic warfarin sodium market.

Whatever the merits of this characterization of defendants' motive and actions, the allegations are not of a sort that implicates the Clayton Act. The Clayton Act is concerned with whether an acquisition or merger itself may cause antitrust injury. Cargill, Inc. v. Monfort of Colorado, Inc., 479 U.S. 104, 115-17 (1986). Plaintiffs themselves assert in other causes of action that ACIC/Brantford had a monopoly on clathrate even before Apotex purchased the remaining shares of ACIC/Brantford, indicating that the acquisition itself had no effect on the degree of concentration or competition in the clathrate market. Further, the Barr/ACIC/Brantford exclusive dealing agreement, which is the crux of the antitrust claims, was entered into before the purchase of ACIC/Brantford.

Plaintiffs have alleged no potential antitrust harm stemming from the acquisition, and thus, at most, allege that the purchase gave ACIC/Brantford unity of ownership. The fact that the 1996 purchase removed a layer of internal corporate control is not by itself a concern of the Clayton Act, for that removal standing alone is not an antitrust violation.

Without directly saying so, plaintiffs appear to hint that Dr. Sherman's connection with Barr -- he was a significant shareholder and member of Barr's Board of Directors in 1996 -- should lead us to examine the vertical aspects of the acquisition. The Supreme Court and this Court have set forth standards for assessing if a vertical merger violates the Clayton Act: "The primary vice of a vertical merger or other arrangement

tying a customer to a supplier is that, by foreclosing the competitors of either party from a segment of the market otherwise open to them, the arrangement may act as a "'clog on competition' which 'deprive[s] . . . rivals of a fair opportunity to compete.'" Brown Shoe, 370 U.S. at 324; United States v. Am. Cyanamid Co., 719 F.2d 558, 566 (2d Cir. 1983). Plaintiffs' only evidence that competitors were foreclosed or that there was a clog on competition comes from the Barr/ACIC/Brantford exclusive dealing agreement, not the 1996 acquisition itself.

All we really have before us is plaintiffs' sneaking suspicion that something illegal occurred from the acquisition of ACIC/Brantford. But plaintiffs have the burden to present evidence that the purchase violated the Clayton Act. They cannot on the basis of surmise and suspicion transform their Sherman Act allegations into a Clayton Act violation. The district court's dismissal of the Clayton Act claim should be affirmed.

VI Joint Venture

In the district court defendants challenged plaintiff Apothecon's standing to raise its state law claims. Apothecon and Geneva had asserted that they were joint venturers and that, under New Jersey law, Apothecon could sue for injuries to the joint venture. The district court ruled that Geneva and Apothecon were not engaged in a joint venture and consequently that Apothecon lacked standing to sue.

The trial court held the relationship lacked two crucial elements to qualify as a joint venture: a joint property

interest in the subject of the venture and a sharing of losses. It found that under the agreement between Apothecon and Geneva, Geneva retained ownership of the finished tablets and then sold them to Apothecon. Thus, it found no joint ownership in the subject of the venture. The trial court also ruled that there was no sharing of losses, but rather only a risk of losing an initial capital investment. It ruled the possibility of losing initial funds invested in the venture was not equivalent to shared losses.

We turn first to the law. "A joint venture is a special combination of two or more persons, whether corporate, individual or otherwise, formed for some specific venture in which a profit is jointly sought without the parties designating themselves as an actual partnership or corporation." 12 Richard A. Lord, Williston on Contracts, 36:9 at 644 (4th ed. 1999). Under New Jersey law, which governs the plaintiffs' agreement, the elements of a joint venture are essentially the same as of a partnership. Carney v. Hansell, 831 A.2d 128, 134 (N.J. Super. Ct. App. Div. 2003). These elements "include agreement, sharing profits and losses, ownership and control of the partnership's property and business, community of power, rights upon dissolution and the conduct of the parties towards third persons, among others." Am. Fire & Cas. Ins. Co v. Manzo, 788 A.2d 925, 929 (N.J. Super. Ct. App. Div. 2002). Joint venture status is created by contract, express or implied, and depends on the mutual intent of the

parties. Sullivan v. Jefferson, Jefferson & Vaida, 400 A.2d 836, 839 (N.J. Super. Ct. App. Div. 1979).

We find the cases applying New Jersey law to be inconsistent on the evaluation of joint venture status. Some cases hold, for example, that sharing of profits and losses is required, while others hold that sharing of profits or losses is sufficient. See, e.g., Wittner v. Metzger, 178 A.2d 671, 675 (N.J. Super. Ct. App. Div. 1962) (sharing of profits and losses required); Hellenic Lines, Ltd. v. Commodities Bagging & Shipping, Process Supply Co., 611 F. Supp. 665, 679 (D. N.J. 1985) (venturers must share profits or losses); Ruta v. Werner, 63 A.2d 825 (N.J. Super. Ct. Ch. Div. 1948) (finding a joint venture despite agreement's lack of allocation of losses); Rodin Properties-Shore Mall, N.V. v. Cushman & Wakefield, 49 F. Supp. 2d 728, 736-37 (D. N.J. 1999) (lack of shared losses does not preclude finding of joint venture); First Mechs. Bank v. Comm'r of Internal Revenue, 91 F.2d 275, 278 (3d Cir. 1937) (same).

Additional cases suggest that the absence of one or more factors does not foreclose a finding of a joint venture. See, e.g., Rodin, 49 F. Supp. 2d at 736 (unequal management responsibilities does not preclude finding joint venture) (quoting 46 Am. Jur. 2d Joint Ventures § 16 (1994) ("[A] joint venture may exist although the parties have unequal control of operations.")). Still other cases consider only some factors but not others. See Upper Penns Neck Tp., Salem County v. Lower Penns Neck Tp., Salem County, 89 A.2d 727, 732 (N.J. Super. Ct.

Law Div. 1952) (Joint venture requires an "agreement to enter into an undertaking in the objects or purpose of which the parties to the agreement have a community of interest and a common purpose in its performance.").

After reviewing this inconsistent and sometimes conflicting case law, we think on balance that the relationship between Geneva and Apothecon contains sufficient indicia of a joint venture to satisfy New Jersey law. Despite being styled a "Development and Supply Agreement," it is clear that the contract is more than a standard supply contract and in fact envisions a substantial sharing of resources towards a joint enterprise.

We agree with the district court's point that the potential for losing initial capital investments is not equivalent to shared losses. Nevertheless, such potential loss points to a mutual interest in success since both parties have an investment at stake and each depends on the other to ensure they do not lose that investment. The potential shared loss of investments, while not itself sufficient evidence of a joint venture, still suggests a fiduciary relationship towards each other and supports the finding of a joint venture based on the other evidence.

Next, we consider the facts. We make six points in developing our divergence from the trial court. First, a classic element of a joint venture is that there is a limited objective and scope of the venture. The Apothecon/Geneva agreement specifically is limited to the development and distribution of twelve pharmaceutical preparations specified in Appendix A to the

agreement. It is also limited in duration, having a fixed term of five years with options for extension.

Second, the contract provides for significant sharing and pooling of resources, skills and knowledge. In sections of the agreement titled "Cooperation" and "Product Development," the contract provides that the parties will share scientific and medical information as well as pre-clinical and clinical data, including "all toxicological, analytical, chemical data and the like." The "Recitals" provisions outline the skills and expertise that each party brings to the arrangement, a consideration not usually relevant to a supply contract.

Third, there is a shared interest, although not strictly speaking shared ownership, over the subject matter of the venture. For example, Apothecon was responsible for funding Geneva's research and development costs in the formulation, testing, and development of the twelve products. Each party had registration and filing responsibilities, Geneva with the FDA and Apothecon with state medicaid agencies. The district court noted that Geneva retained title to the drugs until it sold them to Apothecon, but failed to note that Apothecon purchased the raw materials used to manufacture the drugs. In sum, regardless the state of title to the drugs at any given moment, the agreement envisioned that both parties would be involved in the development of the drugs and both had an ongoing interest in the endeavor.

Fourth, the contract provides for some degree of overlapping control and management over the development. Each party had the

right to audit the books and records pertaining to the development and sale of the products. Geneva was required to permit Apothecon's representatives to visit and inspect its facilities at any time. Apothecon had the right to audit Geneva for compliance with the Current Good Manufacturing Practices promulgated by the FDA. Geneva had the right to a quarterly accounting from Apothecon detailing the quantity of goods sold, total receipts, Apothecon's profit and loss on each product, and the inventory on hand. This degree of mutual oversight suggests to us a close relationship.

Fifth, there was a joint expectation of and participation in profits. Geneva was to be paid a percentage of Apothecon's sales of the drugs.

Sixth, plaintiffs presented some evidence that they held themselves out as partners, for example by issuing advertisements and launch packages that showed Apothecon and Geneva as partners. There is also evidence that defendants recognized Geneva and Apothecon were partners. ACIC/Brantford's Sergio Getrajdman for example referred to Apothecon and Geneva as "partners on the product," and Barr's chief operating officer, Paul M. Bisaro, said Barr was aware of "the relationship between Apothecon, Bristol-Myers and Invamed." Signs of a relationship are not always signs of a joint venture, but the evidence is not inconsistent with a finding of a joint venture.

We conclude that these aspects of the venture demonstrate Geneva and Apothecon's mutual intent to engage in a joint

endeavor. More broadly, we are convinced that if there were antitrust violations, Apothecon was likely injured by them and should not be barred from seeking redress. While the district court cannot be faulted for reaching a contrary conclusion given the state of the case law, we nevertheless must reverse its ruling that Apothecon lacks standing to sue. We hold instead that Apothecon and Geneva were engaged in a joint venture under New Jersey law and that Apothecon therefore has standing to pursue claims as a plaintiff for injuries to the joint venture.

CONCLUSION

Accordingly, for the foregoing reasons, we (1) reverse the grant of summary judgment dismissing all plaintiffs' claims brought pursuant to the Sherman Act §§ 1 and 2; (2) affirm the dismissal of the Clayton Act claim; and (3) reverse the ruling that plaintiff Apothecon lacks standing to sue. The case is remanded to the district court for further proceedings consistent with this opinion.